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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------|------------------|
| 10/715,402 | 11/19/2003 | Yong-Hyun Lee | 1349.1330 | 5308 |
| 21171 | 7590 | 06/20/2006 | EXAMINER | |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | NICHOLSON III, LESLIE AUGUST | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3651 | |

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--|-----------------------------------|--|
| Office Action Summary | Application No. 10/715,402 | Applicant(s) LEE ET AL. | |
| | Examiner Leslie A. Nicholson III | Art Unit 3651 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) 6-21 and 30-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1, 2, 4, 22, 23, 24, 25, 29 is/are rejected.
- 7) ☐ Claim(s) 3, 5, 26 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 6/6/2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/715402 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments and Amendments

2. Applicant's arguments with respect to all previous claim rejections have been considered but are moot in view of the new ground(s) of rejection.

The previous objections to claims 2,4,22, and 23 as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, is hereby withdrawn (see ¶4,8,13).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, the plurality of teeth are described as either having a triangular, rectangular, or trapezoidal shape. Which of the three is claimed? Only one embodiment may be chosen.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Shiau USP 5,904,591.

Shiau discloses a similar driving apparatus comprising:

- A driving motor (4)
- A scanner driving part (2)
- A printer driving part (2)
- A power switching part (5) disposed with the driving motor (C2/L13-17)

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa USP 4,291,339.

Ogawa discloses a similar driving apparatus (fig.15) comprising:

- A driving motor (284)
- A scanner driving part (287)

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- A printer driving part (288)
- A power switching part (286) disposed with the driving motor (C15/L33-36)

8. Claims 1,2, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Yun USP 5,854,696.

Yun discloses a similar driving apparatus (fig.15) comprising:

- A driving motor (80)
- A scanner driving part (89) (C5/L37-58)
- A printer driving part (86) (C5/L59-67, C6/L1-8)
- A power switching part (84) disposed with the driving motor (C5/L6-35) (fig.2,3)
- A first clutch (83)
- A first actuating lever (82)
- A swing gear train disposed between the power switching part and the scanner driving part (fig.2-5)

9. Claims 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakakura USP 4,967,239.

Sakakura discloses a similar power transmitting apparatus (fig.15) comprising:

- A swing gear disposed disposed at a first frame
- A swing lever formed of a V-shaped form (fig.19)
- A pair of idle gears (285a, 285b) respectively disposed at both ends of the swing lever

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- Elastic members (pins through each of 285a and 185b) disposed between the idle gear and the swing lever to contact the idle gear closely to the swing lever
- Wherein the elastic members have continuous contact with the idle gears (fig.19)
- A body comprising a V-shaped form and comprising an axis hole
- Engaging projections formed at both ends of the body to rotatably support the idle gears (each wing of the V-shaped body is an engaging projection)

10. Claims 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura USP 5,419,543.

Nakamura discloses a similar power transmitting apparatus (fig.3-5) comprising:

- A swing gear (62) disposed at a first frame
- A swing lever formed of a V-shaped form
- A pair of idle gears (64e,64f) respectively disposed at both ends of the swing lever
- Elastic members (bearings; fig.4) disposed between the idle gear and the swing lever to contact the idle gear closely to the swing lever
- Wherein the elastic members have continuous contact with the idle gears
- A body comprising a V-shaped form and comprising an axis hole
- Engaging projections (65c,66c) formed at both ends of the body to rotatably support the idle gears

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11. Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Deschamps USP 4,770,555.

Deschamps discloses a similar power switching apparatus comprising:

- A main clutch gear (17) movably disposed at a rotation axis and coupled to the driving source (3)
- First and second clutch gears (19) rotatably disposed at the rotation axis
- A clutch spring (23)
- A compulsory power switching unit (22)

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yun USP 5,854,696 in view of Sakakura USP 4,967,239.

Yun discloses all the limitations of the claim (see ¶8), and further discloses a first frame but does not expressly disclose a second frame, wherein the swing gear train comprises a swing gear disposed at the first frame to engage with the power switching part mounted on the first frame, a swing lever formed of a V-shaped form, or a pair of idle gear respectively disposed at both ends of the swing lever.

Sakakura teaches a second frame (32; fig.7), wherein the swing gear train comprises a swing gear disposed at the first frame (fig.9,18) to engage with the power switching part mounted on the first frame, a swing lever formed of a V-shaped form (fig.18,19), or a pair of idle gears (285a,285b) respectively disposed at both ends of the swing lever for the purpose of providing a device that rotates the output gear in a single direction regardless of the rotational direction of the drive gear.

At the time of invention it would have been obvious to one having ordinary skill in the art to employ a second frame, wherein the swing gear train comprises a swing gear disposed at the first frame to engage with the power switching part mounted on the first frame, a swing lever formed of a V-shaped form, or a pair of idle gears respectively disposed at both ends of the swing lever, as taught by Sakakura, in the device of Yun, for the purpose of providing a device that rotates the output gear in a single direction regardless of the rotational direction of the drive gear.

Allowable Subject Matter

14. Claims 3,5,26, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and objection of claim 3 (see above) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

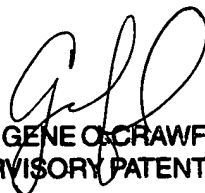
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Nicholson III whose telephone number is 571-272-5487. The examiner can normally be reached on M-F, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

L.N.
6/15/2006


GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER